

TABLE 57

Domestic total employment, R&D employment, and level of education of researchers, by occupation, industry, and company size: 2017

(Thousands)

Industry and company size	NAICS code	Total employment	Total	Researchers ^a		R&D technicians and equivalent staff	Other R&D supporting staff
				Total	With PhD		
All industries	21-23, 31-33, 42-81	19,893	1,609	1,103	119	347	160
Manufacturing industries	31-33	9,919	916	642	76	173	101
Food	311	1,273	23	13	2	6	4
Beverage and tobacco products	312	453	4	3	1	1	1
Textile, apparel, and leather products	313-16	273	7	3	*	2	2
Wood products	321	78	3	1	*	2	1
Paper	322	244	8	5	*	2	1
Printing and related support activities	323	171	3	1	*	1	1
Petroleum and coal products	324	66	2	1	*	1	*
Chemicals	325	1,234	174	119	30	31	25
Basic chemicals	3251	184	16	9	3	4	2
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	66	4	2	*	1	*
Pesticide, fertilizer, and other agricultural chemicals	3253	54	5	4	1	1	*
Pharmaceuticals and medicines	3254	518	127	87	22	20	20
Soap, cleaning compound, and toilet preparation	3256	238	12	9	1	1	1
Paint, coating, adhesive, and other chemicals	3255, 3259	174	11	6	1	3	1
Plastics and rubber products	326	494	28	15	3	10	4
Nonmetallic mineral products	327	122	7	4	*	2	1
Primary metals	331	198	8	3	*	2	3
Fabricated metal products	332	358	26	11	*	11	4
Machinery	333	839	85	57	4	21	7
Agricultural implement	33311	91	9	6	*	2	1
Semiconductor machinery	333242	31	10	8	2	2	*
Engine, turbine, and power transmission equipment	3336	92	11	9	*	1	*
Other machinery	other 333	624	55	34	2	16	6
Computer and electronic products	334	1,200	258	209	22	31	19
Communications equipment	3342	156	45	34	2	6	4
Semiconductor and other electronic components	3344	276	88	76	10	8	4
Navigational, measuring, electromedical, and control instruments	3345	480	69	54	6	10	4
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	78	13	10	1	3	*
Search, detection, navigation, guidance, aeronautical, and nautical system and instrument	334511	210	33	26	1	4	2
Other measuring and controlling device	other 3345	192	23	18	3	4	2
Other computer and electronic products	other 334	287	57	45	4	6	6

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Electrical equipment, appliances, and components	335	291	29	20	1	7	2
Transportation equipment	336	1,771	172	128	7	27	17
Automobiles, bodies, trailers, and parts	3361-63	852	92	72	3	13	6
Aerospace products and parts	3364	710	67	49	3	10	8
Aircraft, aircraft engine, and aircraft parts	336411-13	667	55	42	3	8	5
Guided missile, space vehicle, and related parts	336414-15, 336419	44	12	8	*	2	2
Military armored vehicle, tank, and tank component	336992	1	*	*	*	*	*
Other transportation	other 336	208	13	6	* i	4	3
Furniture and related products	337	167	5	2	*	2	1
Miscellaneous manufacturing	339	687	73	48	5	15	10
Medical equipment and supplies	3391	475	53	36	4	11	6
Other miscellaneous manufacturing	3399	212	20	12	i 1	5	4 i
Nonmanufacturing industries	21-23, 42-81	9,974	693	461	42	174	59
Mining, extraction, and support activities	21	212	13	6	1	5	2
Utilities	22	464	3	1	*	1	*
Wholesale trade	42	282	i 8	4	*	2	2 i
Electronic shopping and electronic auctions	454111-12	291	41	29	1	10	2
Transportation and warehousing	48-49	1,127	7	4	*	2	1 i
Information	51	1,945	305	222	18	63	20
Publishing	511	581	135	106	7	19	10
Newspaper, periodical, book, and directory publishers	5111	9	1	*	*	*	*
Software publishers	5112	572	134	106	7	19	10
Telecommunications	517	775	31	18	1	12	i 1
Data processing, hosting, and related services	518	390	81	55	2	19	7
Other information	other 51	199	59	43	8	13	3
Finance and insurance	52	1,211	36	16	1	19	2
Real estate and rental and leasing	53	38	7	4	*	1	i 1 i
Lessors of nonfinancial intangible assets (except copyrighted works)	533	12	i 3	i 1	i 0	1	i 1 i
Other real estate and rental and leasing	other 53	26	4	3	*	*	*
Professional, scientific, and technical services	54	1,330	235	155	20	58	22
Architectural, engineering, and related services	5413	301	45	30	1	12	4
Computer systems design and related services	5415	456	78	60	6	12	6
Scientific research and development services	5417	283	86	48	11	28	11
Biotechnology research and development	541711	122	19	13	2	6	1

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				Total	With PhD		
Physical, engineering, and life sciences (except biotechnology) research and development	541712	148	57	28	6	22	7
Social sciences and humanities research and development	541720	14	11	8	3 i	*	3
Other professional, scientific, and technical services	other 54	289	25	17	2	7	2
Health care services	621-23	565	6	2 i	1 i	2 i	2
Other nonmanufacturing	23, 44-45 (excluding 454111-12), 55-56, 624, 71-72, 81	2,508	32	18	1	11	3
All companies (number of domestic employees)	-	19,893	1,609	1,103	119	347	160
Small companies							
10-19 ^b	-	73	26	17	3	7	2
20-49	-	285	78	46	7	24	8
Medium companies							
50-99	-	366	74	41	6	25	8
100-249	-	669	111	63	8	34	13
Large companies							
250-499	-	686	87	53	6	25	9
500-999	-	849	90	59	6	19	12
1,000-4,999	-	2,668	275	192	19	55	28
5,000-9,999	-	1,710	185	125	13 i	39	21
10,000-24,999	-	3,007	248	177	22 i	47	24
25,000 or more	-	9,581	437	329	30	73	35

* = amount < 500; i = > 50% of the estimate is a combination of imputation and reweighting to account for nonresponse.

NAICS = 2012 North American Industry Classification System.

^a Researchers include R&D scientists and engineers and their managers.

^b Business Research and Development Survey does not include companies with fewer than 10 domestic employees.

Note(s)

Detail may not add to total because of rounding. Industry classification is based on the dominant business code for domestic R&D performance, where available. For companies that did not report business codes, the classification used for sampling was assigned. Statistics are representative of companies located in the United States that performed or funded R&D.

Source(s)

National Center for Science and Engineering Statistics and U.S. Census Bureau, Business Research and Development Survey, 2017.